SWITCHED CAPACITOR CONTROLLER

User's Guide

IMPORTANT SAFETY INFORMATION

- Always remember to remain insulated from high voltage
- Do not use near water or moisture.
- Always use protective equipment when handling large amounts of voltage and current.

INCLUDED

- Controller Unit
- Receiver Unit
- Serial to USB Cable

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INTRODUCTION

The Switched Capacitor Controller is used to control a high voltage capacitor one a secondary 120 volt line. The device's function is to monitor the voltage of a 120 volt line, record when there is a drop in voltage, and switch a high voltage capacitor to correct the voltage drop. Included with the actual controller is a serial receiver that is can be used to monitor the controller via PC.

INSTALLATION AND SET-UP OF CONTROLLER

1. Connect the line and neutral from the controller to the switch via designated switch ports.
   Red: Line
   Black: Neutral
   - NOTE: Depending on the color coordination, the cables to the switch could be a different color, always remember to verify that the connections are made correctly
2. Connect the line and neutral from the controller to the switch via designated switch ports.
   Red: Line
   Black: Neutral
   - NOTE: Depending on the color coordination, the cables to the switch could be a different color, always remember to verify that the connections are made correctly

NOTE:

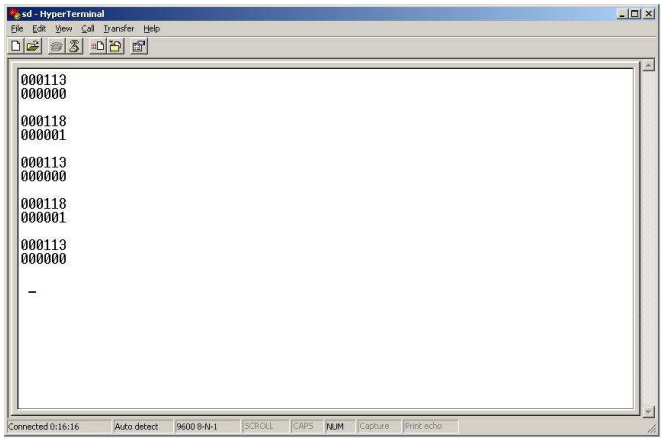
When controller is right side up the ports for the switch are on the left and the ports for your line in are on the right.

INSTALLATION AND SET-UP OF RECEIVER

1. With the included serial to USB cable, connect the receiver to PC.
    - Serial port goes to receiver
    - USB goes to PC
2. Plug the power source cable into an AC power outlet.
    - NOTE:
      If the cover of the receiver is off, you should be able to see a red light on the board glowing red.
3. Open Hyper-terminal on the PC. You should be seeing a “321” on your PC’s screen.
4. You are now ready to begin receiving the information wirelessly from your controller.

OPERATING THE RECEIVER AND CONTROLLER

1. Information will automatically be received from the controller at every switch state.
2. When the controller is activated a number representing the voltage and state of the switch will be displayed
    - Top Number: Voltage
    - Bottom Number: State of Switch
        i. 000001: Switch is closed
        ii. 000000: Switch is open



Example of Hyper-terminal with the received Information.

Receiver with serial port and power cord.

RESETING THE SYSTEM

1. Ensure that the receiver is plugged in correctly and hyper-terminal is open on the PC.
2. Ensure that there is at least 80 volts being input to the controller.
3. Remove the top cover of the controller enclosure.
4. Being careful not to touch and bare connections, press the yellow reset button on the circuit board. (Button is located near the middle of the board closest to the input ports).
5. Immediately after pressing the reset button, a line will appear that will begin counting down from the number 3.
6. Hit enter on the keyboard of the computer before the countdown goes to zero

TROUBLESHOOTING

Problem	What to do
Not receiving any information from controller	- Make sure the receiver is plugged into an AC outlet - Make sure the connections via serial port are secure - check LED on Zigbee to ensure power. - Reset Controller
LED on Zigbee not lighting on receiver	- Make sure the receiver is plugged into an AC outlet - Check power cord for any damage or frays
LED on Zigbee not lighting on controller	- Make sure that there is at least 80 volts being input into the system - Check input cables for any damage or frays
System not responsive	- Make sure the receiver is plugged into an AC outlet - check LED on Zigbee to ensure power. - Reset Controller - Make sure that there is at least 80 volts being input into the system
NOTE: if the solutions above are not correcting the problem it is possible that your board needs to be reprogramed, please contact the designer of this product.	